



Health of Human Beings and the Planet through “Food and Nutrition”

The Planetary Health Practice of the Japan International Cooperation Agency (JICA)

What is Planetary Health?

"Planetary Health" is a concept that emphasizes the interconnectedness of human and animal health with the health of the planet, aiming to address social, economic, and ecosystem issues comprehensively. While our health relies on a sound global environment, environmental pollution caused by human activities is seriously increasing, pushing the Earth's systems closer to its limits. Planetary Health seeks to pursue sustainable health of human beings and prosperity by ensuring the essential social foundations for people to live healthy and for cultures to thrive, while remaining within the planet's environmental limits.

Impact of Climate Change on Food and Nutrition

As of 2024, an estimated 390 million people worldwide are underweight, while approximately 2.5 billion people are overweight, according to WHO. Maintaining an appropriate nutritional status and energy balance is fundamental to health. However, achieving this depends not only on individual choices, but also on significant social and environmental factors^[1]. In countries that are particularly vulnerable to the impacts of climate change, this issue is closely linked to the sustainability of the global environment. Frequent floods and droughts caused by climate change destabilize food supplies and increase the risk of undernutrition. In some countries, changes in ecosystems have made it difficult to cultivate traditional crops, leading to greater reliance on ultra-processed foods. This shift in the food environment promotes excessive calorie intake and contributes to rising the prevalence of overweight and obesity.

Food and the Health of the Planet

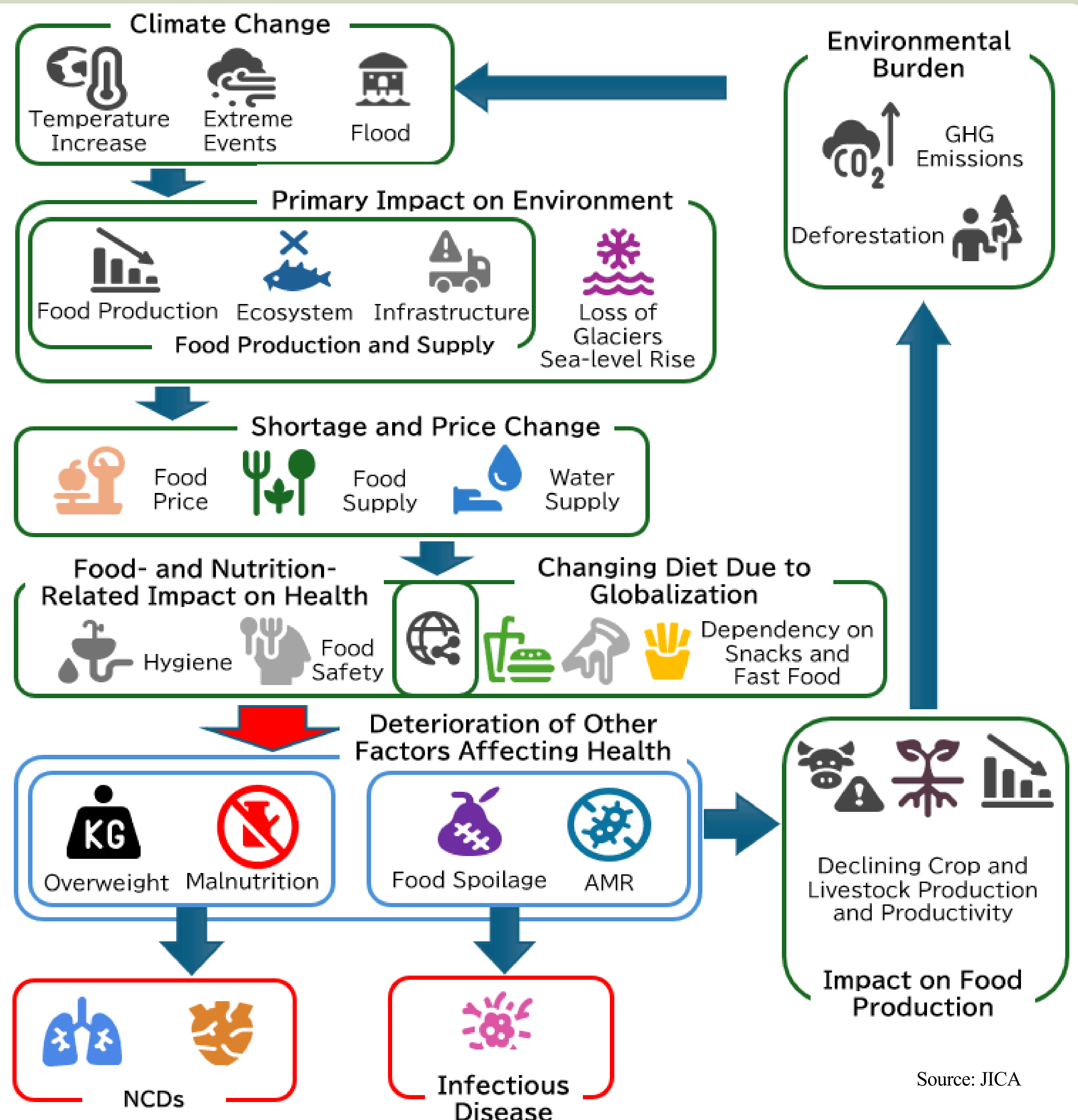
Food is a part of a complex system interconnecting with the environment of our planet.

Environmental Burden on the Planet from Food Sector:

The food system—from manufacturing to disposal including logistics and consumption—is a main driver of excessive water use and deforestation, accounting for 30% of global greenhouse gas (GHG) emissions^[2]. These processes have a serious impact on the environment accelerating the degradation of the ecosystem and loss of biodiversity.

Environmental Impact on Food Sector:

Environmental burden consequently threatens the safety and stability of food supply. Water contamination with chemical substances causes food poisoning. Chemical contamination of water can cause food poisoning and harm ecosystems, leading to the future reductions of food options. To protect health of human beings and the environment, it is therefore necessary to end this vicious cycle and establish a sustainable food system.



“Food and Nutrition” Projecting Health of Human Beings and the Planet:

Importance of Planetary Health Perspective

While food demand rises due to population growth, it is essential to reduce the environmental burden through food and nutrition choices that also protect health of human beings. This comprehensive perspective of health, society and environment embodies the concept of Planetary Health and is necessary for future international cooperation.

Solomon Islands | Stay Healthy as an Entire Village “Health Promoting Village Project”

In Solomon Islands, eating habits have changed dramatically due to the recent increase in imported foods and ongoing climate change. As a result, cases of Non-Communicable Diseases (NCDs) have risen, and now account for 60% of the cause of all death in the country.

Moreover, various health challenges—such as malnutrition, malaria, diarrhea and poor water, sanitation, and hygiene (WASH) services—are interconnected and have severely impacted people’s health.

To solve this complex issue, a multi-sectoral and comprehensive approach integrating agriculture, water, hygiene, health and education, was considered.

JICA has implemented multifaceted initiatives to improve community health standards based on WHO’s setting-based approach through the Health Promoting Village Project to respond to the challenge.



【Before Project】
Imbalanced Diet with Carbohydrates
(Instant Noodle and Rice)



【After Project】
Traditional Diet with Locally
Grown Vegetable

Planetary Health Perspective

Practicing Planetary Health Starting with Soil Building

Planetary Health aims to balance human health with the health of the planet. This involves addressing local health issues in response to environmental changes such as climate change and sea-levels rising.

In Solomon Islands, promoting vegetable consumption has been an important strategy for preventing obesity. However, rising sea levels and storm surges have made coastal soils increasingly saline, making it difficult to grow vegetables. As a result, residents increasingly rely on processed foods, which raises the risk of undernutrition and lifestyle-related diseases.

To address this challenge, the project introduced kitchen gardens to encourage residents to grow vegetables at home. With support from the Ministry of Agriculture, residents learned soil improvement techniques and fertilizer management and adopted cultivation methods resistant to salt damage. As a result, vegetable production and the frequency of vegetable consumption have increased.



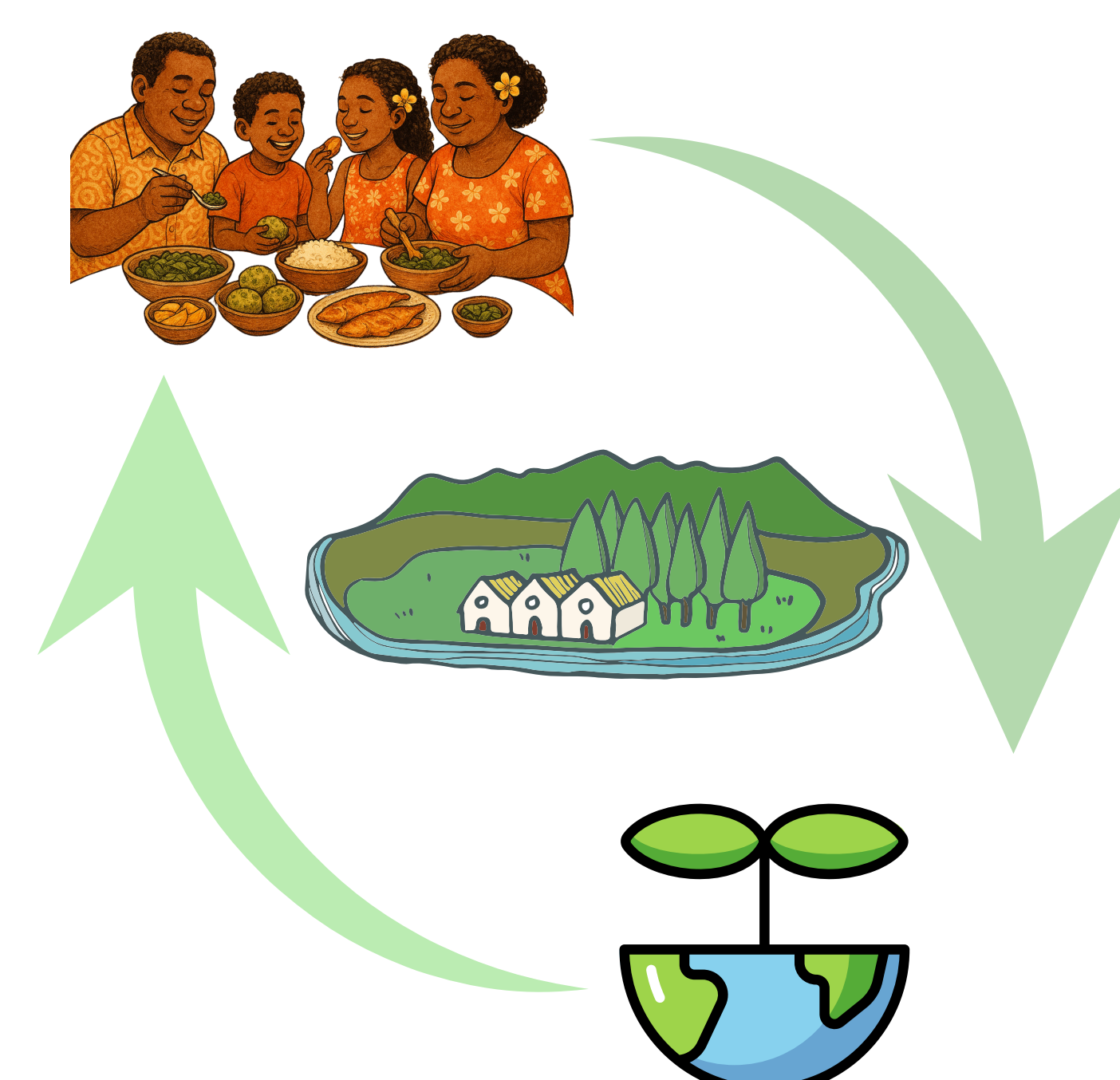
Planted Local vegetable, Edible Hibiscus

A Positive Cycle for Planetary and Human Health Sparked by Rethinking Food and Nutrition

The key lies in rethinking “food and nutrition.” In Solomon Islands, growing consumption of processed foods has led to an increased food packaging waste being dumped into the rivers. This has degraded river ecosystems and created breeding grounds for mosquitoes, which in turn has contributed to the spread of malaria. This situation is an example of a negative cycle between environment and human health.

In response to this issue, the Healthy Village Initiative promoted dietary improvements through health education. As a result, the processed-food-heavy diet was reconsidered, leading to a significant reduction in food packaging waste being dumped into the rivers. Combined with community-led clean-up activities, river environments have improved, and malaria infections have decreased.

This series of initiatives demonstrates that improving dietary habits can help reduce waste pollution and lower infectious disease risks, creating a positive cycle that supports both human and planetary health. This model offers valuable insights for building sustainable communities and can be applied to other island nations and regions affected by climate change.



References

- [1] WHO (2024) [Fact Sheet on Malnutrition] <https://www.who.int/news-room/fact-sheets/detail/malnutrition/> (Accessed: October 2025)
- [2] Willett, W., et al., (2019) in Lancet (2019) vol.2:393 「Food in the Anthropocene: the EAT-Lancet Commission on Healthy Diets from Sustainable Food Systems」 pp.447-492.
- [3] Nomura and Makimoto (2024) [Treatise: Multi-Sector/Stakeholder Approach to Complex Nutrition Issues] [1-3_ronko_nomura030-041.pdf](#) (Accessed: October 2025)
- [4] JICA, Health Promoting Village Project, ODA <https://www.jica.go.jp/oda/project/1500303/index.html> (Accessed: October 2025)